# SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service Washington, DC



U.S. Department of Transportation

Federal Aviation Administration

NM-05-68 July 8, 2005

# http://www.faa.gov/aircraft/safety/alerts/

This is information only. Recommendations aren't mandatory.

#### Introduction

This Special Airworthiness Information Bulletin alerts you, owners and operators of **certain Transport Category Airplanes** (**listed in Table 1**), that the design is such that mechanical advantage enables the capability of opening the exit when significant differential pressure exits between the cabin and the outside. In some cases, this differential may be sufficient to push the person operating the exit through the exit opening. Airplanes with this potential include, but aren't limited to, the following aircraft in Table 1.

## **TABLE 1**

Manufacturer	Model
Aerospatiale	ATR42
(S.N.I.A.)	ATR72
	SN-601 "Corvette"
Airbus	A318
(Industries)	A319
	A320
	A321
	A330
	A340
Boeing	737-600/-700/-800/-900
Company	Overwing exit
	747-300/-400 Upper deck
	exit
Bombardier Inc.	BD-100-1A10 (Challenger)
(Canadair)	
	BD-700-1A10 (Global
	Express)
	CL-600-1A11 (CL-600
	series)

Bombardier Inc.	CL-600-2C10 (RJ 700
(continued)	series)
	CL-600-2D24 (RJ 900
	series)
	DHC-3
	DHC-4
	DHC-6
	DHC-7
Cessna Aircraft	550/560
Company	560XL
	650
	750
Dassault-	Fan Jet Falcon
Aviation	Mystere-Falcon 20
	Mystere-Falcon 200
	Mystere-Falcon 50
	Mystere-Falcon 900
	Falcon 900EX
	Falcon 2000
	Falcon 2000EX
AvCraft	328-100
Aerospace	328-300
GmbH (Fairchild	1
Dornier)	
Fokker Services	<u>F.28</u>
	F.28 Mark 0070/Mark 0100
	Airstair door
Learjet Inc.	24
(Gates)	25
	31
	35
	36
	55
	60

## **Background**

The National Transportation Safety Board (NTSB) has recommended that manufacturers design fuselage doors on future airplanes so that they can only be opened when there is limited differential pressure between the cabin and the outside. This recommendation was based on incidents and accidents where persons were pushed through an exit when it was opened under high differential pressure. We have issued airworthiness directives to address the airplanes on which this occurred because of the severity of the condition.

The NTSB also recommended that operators implement a way of notifying persons that the exit can be opened with differential pressure and to exercise caution.

During our investigation, we concluded that the majority of airplanes on which opening with significant differential pressure is possible are the smaller transports, which have several mitigating features.

- They are low to the ground, they have relatively small cabin volumes, and will thus equalize pressure very quickly.
- They are usually operated by persons familiar with the airplane. Even so, there is some potential for injury and we want to make you aware of it.

- In the other airplanes, the exits are either primarily emergency exits and aren't used for boarding or loading of supplies, or are already equipped with an indication for opening in non-emergency conditions.
- We expect that the situation would occur only rarely as there is generally only significant differential pressure on the ground following failure(s) in the cabin air pressurization or venting systems.

#### Recommendation

We agree with NTSB and recommend that you implement a means to notify persons that doors or exits on the identified airplanes can be opened with significant differential pressure and that in the event you feel resistance in opening the door, you should proceed with caution. For example, you may elect to install placards or indication systems near or on the affected exits.

#### **For Further Information Contact**

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